

Leading Community Risk Reduction

Firefighter Risk Reduction through Analyzing and Implementing a Comprehensive Wellness
Program

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Appendices Not Included. Please visit the Learning Resource Center on the Web at <http://www.lrc.dhs.gov/> to learn how to obtain this report in its entirety through Interlibrary Loan.

Abstract

Lincoln Fire & Rescue (LFR) is committed to providing the highest level of service to citizens of Lincoln, Nebraska. Many of these services rely on fitness levels of the firefighters providing it. LFR had implemented a physical fitness policy and program in the 1980's but it was internally developed and never accepted as a credible standard. The problem is that LFR does not have a comprehensive wellness/fitness program for firefighters.

The purpose of this research is to assess the needs of Lincoln firefighters and provide information to identify elements of a comprehensive wellness/fitness program. The following questions were posed: (1) What standards are available for a comprehensive firefighter wellness/fitness program? (2) What are the needs of participants in the Lincoln Fire & Rescue wellness/fitness program? (3) Would the Fire Service Joint Labor Management Wellness/Fitness Initiative program be comprehensive enough to meet the needs of Lincoln firefighters? (4) What considerations should be made when implementing a comprehensive firefighter wellness/fitness program?

An evaluative research method was used to gather information on the standards and identify needed improvements to the current LFR firefighter wellness/fitness program. Descriptive research through questionnaires, observations and interviews was used to gather information from LFR employees on the attitudes, opinions and effectiveness of the current wellness/fitness program. A questionnaire was also sent to sixty fire departments to determine the extent and essential components of wellness/fitness programs.

The results of applied research found the Fire Service Joint Labor Management Wellness/Fitness Initiative was comprehensive enough and met the needs of LFR firefighters and

recommendations of this research supports implementation. Recommendations also included revision of department wellness/fitness related management policy, utilizing Peer Fitness Trainers, improve the current incentive program and refine the health records database.

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Introduction

Lincoln Fire and Rescue (LFR) is committed to providing the highest level of fire prevention and control, emergency medical services and public education services to citizens of the Lincoln, Nebraska community. Many of these services rely on the fitness and training levels of the fire suppression personnel providing it. The United States Fire Administration (USFA) released a report on September 27, 2005 identifying serious concerns that firefighter fatalities in the United States due to stress and over exertion were the highest in over 10 years. “Of the 66 stress-related fatalities in 2004, 61 firefighters died of heart attacks, 4 died as a result of CVA’s, and 1 died of an aortic aneurysm.” (C2 Technologies, 2005, p.16). The national concern for health and safety through wellness/fitness of firefighters is also a concern for LFR employees.

Everyone Goes Home was a Firefighter Life Safety Initiative developed in 2005 through the National Fallen Firefighters Foundation. Initiative six specifically requests departments to “Develop and implement national medical and physical fitness standards that are equally applicable to all firefighters, based on the duties they are expected to perform.” (National Fallen Firefighters Foundation, 2005)

LFR had implemented a firefighter physical fitness policy and program in the 1980’s but it was internally developed and never accepted as a credible standard. The problem is that LFR does not have a comprehensive wellness program for firefighters.

The purpose of this research is to assess the needs of Lincoln firefighters and provide information to identify elements of a comprehensive wellness/fitness program. Evaluative and historical research was used to answer the following questions:

- a. What standards are available for a comprehensive firefighter wellness/fitness program?

- b. What are the needs of participants in the Lincoln Fire & Rescue wellness/fitness program?
- c. Would the Fire Service Joint Labor Management Wellness/Fitness Initiative program be comprehensive enough to meet the needs of Lincoln firefighters?
- d. What considerations should be made when implementing a comprehensive firefighter wellness/fitness program?

An evaluative research method will be used to gather information on the standards and identify needed improvements to the current LFR firefighter wellness program. Descriptive research through questionnaires, observations or interviews will be used to gather information from LFR employees on the attitudes, opinions and effectiveness of the current wellness program.

Background and Significance

LFR is a medium sized metropolitan fire department serving the City of Lincoln, NE with a population of approximately 232,000 in an area of nearly 80 square miles (City of Lincoln, 2005a). The department consists of 258 paid fire suppression members and an operating budget of just over \$18 million. The department is accredited through the Commission on Fire Accreditation International, (CFAI) since August 25, 1997 and provides emergency and non-emergency services, typical of most paid professional fire departments of similar size (City of Lincoln, 2005b). LFR is also host to Nebraska Taskforce 1 (NETF-1), Urban Search and Rescue (USAR) since 1993 (LFR, 2005b).

LFR leaders join others from around the country, realizing that their greatest resource and the heart of any organization is people (CFAI, 1997-2000). Staffing costs of fire suppression personnel typically consist of approximately ninety percent of most career fire department operating budgets (91% for LFR), providing all fire and life safety services for most

communities (City of Lincoln, 2005c). The Lincoln community can be considered a fair representation of most other cities of similar size.

For years, the fire service is reminded of an alarming trend of poor health among many firefighters. Obesity in the national workplace is becoming a financial burden approaching a national health crisis. A recent USA TODAY article stated that persons 30 or more pounds over what is considered a healthy weight costs \$460-\$2,500 more per person in additional weight related medical costs and lost work when compared to other employees who maintain a healthy weight (Hellmich, 2005). Associated to poor health, studies from the National Fire Protection Association, (NFPA) recently showed that about half of firefighters who died of heart attacks had a known heart condition and another third had heart conditions that medical testing could have detected (Fahy, 2005, pp. 3-4).

LFR began a fitness program in the early 1980's. After some resistance by firefighters, fire administration implemented a Standard Operating Policy (SOP) 83 that required newly hired firefighters after January 15, 1985 maintain specific conditions of employment which included a physical fitness profile. Reference was also made to SOP 82 which prohibited employees hired after January 15, 1985 from smoking. This requirement essentially was a contract with the City of Lincoln and the employee. Failure to comply with the policy was cause for termination. The Notice of Conditions of Employment of the Lincoln Fire Department can be found in Appendix A

On October 9, 1987 the program changed after a tragic fatal heart attack occurred to a fire apparatus operator within hours of taking an annual fitness test that consisted of a 1.5 mile timed run. Fire administration and the firefighter's labor union agreed to suspend the fitness program and annual evaluations pending an extensive study lasting nearly one year. The resulting fitness

program change was a positive move toward the broad spectrum of general overall fitness along with individual health and wellness. Labor and management became more involved in a joint effort to provide a program with the primary focus of firefighter health and safety. Department written management policies were developed to include critical incident management, stress reduction and smoking cessation. In addition, LFR employees were identified from 14 fire stations to receive training as fitness counselors in order to work with firefighters on an individualized fitness training program. Annual medical exams were designed and used to screen for individual health issues while maintaining employee medical confidentiality.

An incentive program called the 100 Point Fitness Club was developed to encourage fitness participation for both on and off duty. Points are earned for a variety of activities ranging from weight lifting and jogging to bicycling and tennis. As points are accumulated, awards of t-shirts and gym shorts are then offered at different levels over a two year period. Anyone earning 1,000 points over a two year period received more significant awards such as quality polo shirts, jackets or gym bags during a formal recognition ceremony hosted by the Fire Chief and city dignitaries. In 2005, thirty-four department members earned over 1,000 points for the previous two year program (1,000 Point Fitness, 2005).

All programs combined, LFR has taken a proactive approach to firefighter wellness/fitness yet problems still exist. All firefighters, captains or chief officers are not participating in fitness activities as required by policy since enforcement at all levels is difficult to monitor. It is suspected that some alarming results from medical screening tests were showing a correlation to those firefighters who lack good physical health. The fire department physician, Dr. David Durand provides a medical examination to all LFR firefighters and has the opinion that weight, elevated or borderline high blood pressures and blood cholesterol levels are

becoming a concern for general fitness and wellness (D. Durand, personal communication, October 19, 2005).

If a trend of poor fitness and health continues among Lincoln firefighters, the impact could be significant. New employees may be coming into the workforce with health characteristics similar to the general population and have little motivation for maintaining healthy lifestyles. It will be important to provide the motivation and support for a healthy workplace. Current department members also need the support and encouragement to continue meeting the physical job requirements. Both labor and management believe that if the requirements are not met, then rehabilitation measures should be in place to provide necessary support. Ultimately, firefighters should physically meet minimum job requirements and eventually enjoy a healthy retirement.

This research also meets the requirement as it relates to one or more of the United States Fire Administration (USFA) Operational Objectives. It attempts “To appropriately respond in a timely manner to emergent issues” (USFA, 2005) that are affecting LFR firefighters and safe operations. Curriculum for the NFA course *Leading Community Risk Reduction* contains information that outlines risk identification, vulnerability assessment, building support in a community and changing organizational culture. While most of these concepts were referencing our local jurisdictions, many parallels are evident within our own fire department organizations. A primary association can be made when addressing firefighter health and safety, during implementation of comprehensive medical and physical fitness programs and when attempting to reduce the risks of preventable medical conditions associated to poor health (NFA, 2004).

A formal and comprehensive program is essential to meet the LFR wellness/fitness objectives. The Fire Service Joint Labor Management Wellness/Fitness Initiative (WFI) will be

a primary consideration for implementation to meet those objectives (M. Spadt, personal communication, May 9, 2005).

Literature Review

The literature review for this Applied Research Paper (ARP) began at the Learning Resource Center (LRC) at the National Fire Academy (NFA) in Emmitsburg, MD in April 2005. Research consisted of gathering information and subject matter relating to firefighter fitness standards, various fitness and wellness programs and related health data. Research then continued in Lincoln, NE with LFR management policy, accreditation documents and LFR records through various Internet websites and electronic department archives. Interviews were also conducted with two physicians familiar with LFR employees to provide professional opinions regarding general firefighter fitness and wellness. Interviews were conducted with LFR Fire Chief Mike Spadt and IAFF Local 644 Union President Mark Munger. Tami Usrey of St. Elizabeth Company Care was also a source of information relative to costs and administration of annual medical exams for department members.

The fire service, like many other organizations and businesses, rely on professional standards for guidance and validation. To answer the research question, what minimum standards are available for a comprehensive firefighter wellness program, the National Fire Protection Association (NFPA) is a leading source. NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, provides direction for medical and physical requirements in Chapter 10. It specifically makes reference to NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments and NFPA 1583, Standard on Health-Related Fitness Programs for Firefighters. Both are essential to meet medical and physical requirements of the standard (NFPA, 2002).

NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments (2003) outlines requirements for both candidate and current fire suppression members. The purpose is to reduce risk of morbidity and mortality for firefighters in the Authority Having Jurisdiction (AHJ). The standards address detailed medical evaluations and occupational fitness evaluations for firefighters (NFPA, 2003).

NFPA 1583, Standard on Health-Related Fitness Programs for Firefighters claims that the many stress factors and the often extreme physical nature of the profession requires firefighters be medically and physically fit in order to safely and effectively perform their duties. The consensus of the technical committees studying fire service health and safety also indicated firefighter fatalities and injuries would be significantly reduced if both NFPA 1583 and NFPA 1582 are implemented (NFPA, 2000).

The Commission of Fire Accreditation International, Inc. (CFAI) provided guidance for fire and emergency service agencies to complete an accreditation program through a self-assessment and on-site evaluation. Departments are granted accreditation upon successful completion of both components. LFR first received accreditation from CFAI in 1997. Under section 7D.6 of the accreditation compliance report, LFR will maintain a health/physical fitness program. Provisions for non-compliance by employees/members must also be written and understood (CFAI, 1997-2000). LFR's compliance report states that a mandatory physical fitness program is in place and a voluntary wellness program is offered. (LFR, 2003).

Based on literature review from recognized agencies, the WFI supports standards of fitness and wellness to satisfy established standards from NFPA and CFAI. Many other articles and publications also support fitness, wellness and healthy living including the American Heart

Association, (AHA), Center for Disease Control, (CDC), and the American College of Sports Medicine (IAFF/IAFC, 1997-2000).

Review of literature from LFR documents helped establish background information relative to the needs of the participants in their wellness program as asked in ARP research question three. Review of current policy also helped answer ARP question four, what considerations should be made when implementing a comprehensive firefighter wellness program. LFR Management Policy (MP) 310.01, states “All members of this Department assigned to emergency response activity shall participate in either the structured Physical Fitness Program or the Wellness Program administered by Wellness Counselors to meet the needs of the individual.” (LFR, 1999, p.1). It further shows the commitment of LFR by allowing each firefighter approximately one and one-half hours per day for participation in the fitness and wellness program. LFR currently has sixteen MP’s that address fitness, wellness, smoking, annual medical exams, Employee Assistance Program (EAP), the 100 point incentive program, fitness for duty and fitness documentation.

Based on national health trends, there seems to be a correlation between rising work absence and fitness participation. LFR maintains personnel leave records in a Management Information System called LFR-MIS. Department leave records that can be specifically associated to firefighter wellness-fitness levels include disability, injury and sick leave. Table 1 shows summaries of LFR-MIS leave statistics for Sick, Injury and Disability leave for the three years 2002 - 2004 and nearly 10 months of 2005 from January 1, to October 26, 2005. Figures are shown as total annual leave hours.

Table 1

LFR Annual Leave Hours

	2002	2003	2004	2005
Disability	120	2,700	92	1,318
Injury	5,696	7,382	10,209	12,159
Sick	17,951	16,370	21,829	17,750
Totals	23,767	26,452	32,130	31,227

Disability statistics from LFR indicate an inconsistent trend from 2002 through October 26, 2005. A steady increase in work related injuries had occurred every year from 5,696 hours in 2002 to 12,159 hours through October 26, 2005. Leave totals for disability, injury and sick leave for 2002-October 26, 2005 all show a steady increase (LFR [MIS], 2005c).

There is also valid information that shows corporations are saving money on healthcare costs, sick and injury leave and lost work time by implementation of a successful wellness program. Motorola Corporation found that for every \$1.00 investment they made toward a wellness program resulted in \$3.93 reduction in insurance, lost productivity and health costs (DHHS, 2003). Nationally, it is estimated that high blood pressure alone results in lost productivity estimated at \$10.8 billion annually (AHA, 2001).

Dr. David Durand is the Medical Director of St. Elizabeth Company Care, the contract agency responsible for employee medical exams for LFR firefighters. He is board certified in occupational medicine and specialized in musculoskeletal injuries. He also holds a Masters in

Public Health (MPH) and Masters in Business Administration (MBA). In a telephone interview, Dr. Durand believes that for the most part LFR firefighters are more fit than the general population. Without specific numbers to substantiate his claim, he also stated that LFR firefighters are confronted with being overweight, having high blood pressure and high cholesterol issues similar to the general population (D. Durand, personal communication, October 19, 2005).

Literature review of current LFR department policy helped establish current practice and determine needs. MP 310.01 Physical Fitness was last revised in 1999 and states all department members shall participate in either the structured Physical Fitness Program or the Wellness Program administered by wellness counselors. Company officers are to keep appropriate records of fitness and wellness activities. The department has committed to one and one-half hours per day for members to participate in either program. The policy further requires that the on duty program will have participation by all emergency response personnel unless excused or restricted by a physician (LFR, 1999). MP 310.09, Wellness Program had been revised in 1993. This policy states that fitness counselors are trained in the areas of medical screening, nutrition education, flexibility, body composition, cardiovascular concerns and strength. It also states they are available to assist participants in the wellness program (LFR, 1993a).

LFR MP 306.10 is a smoking policy and has been in effect since 2001. Current policy only restricts smoking to appropriate times and locations so as not to affect non-smokers. Assistance is offered for employees wishing to attend smoking cessation clinics or classes (LFR, 2001).

Fitness for Duty is MP 306.03 and was recently revised in May 2005. This policy determined that all fire suppression members, regardless of rank must be physically capable of

meeting the minimum physical qualifications and expectations of their job classification. It addresses specific circumstances upon return after a serious injury or illness when absent for 30 days or more. The fitness for duty consists of a complete physical exam by a physician followed by job simulations conducted by a physical therapist. Each of the 10 screening tests are simulations of actual duties performed in the course of fire suppression related activities. A very important aspect of this policy is for rehabilitation measures or disability pension options available to employees who are not fit for duty (LFR, 2005a).

MP 310.10 defines the 100 point fitness club and was last revised in 1993. This policy was designed as an incentive for both on and off duty fitness and wellness participation. Points are accumulated for specific activities and awards are earned such as fitness clothing and t-shirts. Different awards are offered at the 100, 300, 500 and 1,000 accumulated point levels (LFR, 1993b). The program has been moderately successful with several employees participating in off duty participation who may not otherwise be involved. For the program years 2003-2004, 119 members have participated with 34 members earning the 1,000 point award (LFR [MIS], 2005c).

WFI Literature Review

A primary consideration for this ARP was to address question three, is the WFI comprehensive enough and question four, does it meet the needs of LFR firefighters and what are considerations for implementing a firefighter wellness program. The WFI second edition is the latest version and primary source for this research. When reviewing the forward, taskforce participants, departments, acknowledgements and mission statement, it becomes apparent that every effort was made to present an initiative that meets the fitness and wellness goals of all firefighters. LFR has made every effort to comply with high standards in the fire service through department accreditation and the use of recognized standards such as NFPA. This high standard

is evident throughout the WFI and reflects the need for a comprehensive Health Related Fitness Program (HRFP) in Lincoln.

This initiative was developed as a joint venture by both labor (IAFF) and management (IAFC). Support from both the IAFF and IAFC is a critical component for its successful implementation in Lincoln. IAFF Local 644 president, Mark Munger was approached about the concerns of the current HRFP and supported implementation of the WFI. In addition, a representative of the executive board of IAFF Local 644 would assist in its implementation and will participate as a member of the HRFP committee (M. Munger, personal communication, May, 16, 2005).

The mission statement and chapter one of the WFI summarizes the program as positive and non-punitive. It requires mandatory on-duty participation, allows for variations with consideration to gender, age and position within the department. In addition, it offers rehabilitation and support for participants as necessary. It utilizes a training and an education component and is reasonable and equitable to all participants (IAFF/IAFC, 1999-2000). According to LFR Fire Chief Mike Spadt, this mission statement reflects an organizational goal he has set for the department (M. Spadt, personal communication, May 9, 2005).

Chapter two of the WFI addresses the importance of the medical examination in the HRFP program. LFR has provided annual medical exams for over 30 years for all firefighters. A general overview of chapter two indicated that LFR is very near compliance on most aspects of the medical exam (IAFF/IAFC, 1999-2000). The only issue is not with the importance of particular medical tests or procedures, but rather with financial and budgetary constraints. According to Tami Usrey of St. Elizabeth Company Care, adding an Aerobic/Cardiopulmonary

test with an EKG to the current contract, medical exams for LFR would amount to \$650.00 per firefighter, or over \$182,000 annually (T. Usrey, personal communication, October 28, 2005).

The WFI states the importance of an annual medical exam, and each member may prefer to use their own primary care physician (IAFF/IAFC, 1999-2000). LFR Management Policy 306.03 requires all medical exams be completed by the fire department physician (LFR, 2005a).

Chapter three of the WFI contains information relative to the fitness aspect of the program including the recommended types of fitness equipment. A list of the minimum required equipment includes many items that are not available to every fire station facility in Lincoln due to either financial constraints or simply because of the lack of adequate space (IAFF/IAFC, 1999-2000).

The importance of Peer Fitness Trainers (PFT) is discussed in the WFI as being an important aspect of the program safety and ongoing encouragement to all members to maintain participation. The PFT training and certification can add to the credibility of the program and can be vital to having a successful rehabilitation program. Several certification programs are mentioned. The IAFF provides the PFT certification and training on request through Union Locals (IAFF, 2005).

The self assessment tool and personalized exercise prescription described in chapter three are all indicators of positive HRFP philosophy that addresses implementation components of the WFI. It allows for a progressive individualized program and is tailored to focus on exercise safety and healthy lifestyle changes. (IAFF/IAFC, 1999-2000)

Chapter four addresses a rehabilitation process for firefighters affected by injuries or needing assistance for medical or fitness training reasons. Emphasis again is for a non-punitive rehabilitation program. The WFI states that when an extended leave for a firefighter exceeds six

continuous months, a medical and fitness evaluation must be conducted before release to duty (IAFF/IAFC, 1999-2000).

Chapter five of the WFI contains information on the behavioral health component (IAFF/IAFC, 1999-2000). LFR currently has addressed several aspects of behavioral health through an external contract agency which provides Critical Incident Stress Management (CISM), substance abuse, tobacco use cessation, stress management and comprehensive counseling services. These are all addressed through some form of education or intervention. LFR Department policy 306.10 even allows for firefighters to submit a request to attend smoking cessation clinics with costs reimbursed to the employee (LFR, 2001)

Data collection is outlined in chapter six and contains information relative to a confidential database for individual recordkeeping. The database is capable of international collection and storage of personal medical, fitness, rehabilitation and behavioral health information. It is also designed with the intent for analysis in improving firefighter health and welfare using a standard specified in the initiative (IAFF/IAFC, 1999-2000). LFR currently only maintains electronic records for participation in the 100 Point Club (LFR [MIS], 2005c).

Literature Review Summary

Literature review for this ARP consisted of reviewing standards on comprehensive firefighter wellness programs. An abundance of information can be found on the benefits of daily exercise and healthy living choices for the general population. Primary sources of fire service standards are with professional organizations such as the IAFF and IAFC. The NFPA has developed consensus standards on firefighter health and safety that are internationally recognized. Many fire departments are also moving toward accreditation standards through

CFAI which address health and fitness for firefighters. Specific reference is made in many literary sources supporting the WFI as a comprehensive program.

Literature review of LFR policies and procedures determined the current practices and revealed areas that may not be comprehensive enough to meet current standards. Reviewing department policy also highlighted some deficiencies when compared to the comprehensive nature of the WFI. It also illustrated what is needed for successful implementation of a comprehensive fitness and wellness program.

Procedures

Research for this project utilized an evaluative method for gathering information on standards with the objective to identify improvements in the current LFR firefighter HRFP. The research consisted of reviewing published material, information from LFR database and Internet sources. Questionnaires and interviews were conducted for the descriptive research component needed to determine LFR employee attitudes, opinions and effectiveness of the current wellness program. A separate external questionnaire was used to help identify other fire department problems and solutions relating to fitness and wellness programs. The purpose of the research was to identify fitness and wellness trends, ideas and values as it applies to the fire service, specifically regarding the WFI.

Research for the literature review of this ARP began in April 2005 at the LRC at NFA in Emmitsburg, MD and continued in Lincoln, NE through the internal LFR library system and included periodicals, ARP's from other Executive Fire Officer (EFO) students, books, the Internet and electronic database files from the LFR Management Information System (MIS). The focus of the literature research was to determine the effectiveness of wellness programs, the general issues surrounding fitness and wellness programs and more specifically, the effects of

our current fitness and wellness program on LFR firefighters. Information from the second edition of the WFI was reviewed to determine if the program was comprehensive enough to replace the current LFR fitness-wellness program. It was also important to look at all aspects of how to implement the WFI.

Surveys

In order to properly research the descriptive nature of this ARP, opinions and information were needed from LFR firefighters relating to several aspects of the current wellness-fitness program. A questionnaire was sent to 267 LFR fire suppression employees who according to job description are responsible for firefighting activities. This included firefighters, captains and deputy chiefs. Zoomerang™ is a web based service used to design and administer 28 questions relating to the current wellness-fitness program, the firefighter's participation in the current fitness program and to determine if the WFI would be comprehensive enough for LFR to implement. It was important that responses remain confidential and no attempt was made to identify specific individuals. Survey participants were from all ranks and 133, or approximately 50%, responded. Several questions were designed for optional comments and further clarification. While many comments were received, this feature compounded question evaluation. Several questions allowed for respondents to check multiple issues to a single question. While this allowed for gathering additional information, it did seem to skew the response ratios and number of responses. It is important to note that distribution of this questionnaire was complicated by technical blocks in the internal e-mail system of LFR which allowed personnel to opt out of response and others claimed to have never received the questionnaire invitation. It is assumed that respondents provided honest opinions. The entire questionnaire and response can be found in Appendix B.

An external questionnaire was also used to determine the prevalence, comprehensive nature and any implementation considerations for the WFI. The external questionnaire was launched on October 3, 2005 and closed on November 16, 2005. It consisted of 12 questions sent to 60 different fire departments. For purposes of this research, it was determined that department size or the volunteer, career or combination type service of questioned departments was not relevant since fitness and wellness is a nationwide fire service concern. Twenty-eight, or approximately 46%, responded. Several questions were designed for optional comments and further clarification. While many comments were received, this feature made question evaluation more difficult. Administration of the external questionnaire was also through the web based Zoomerang™ subscription service. The entire questionnaire and response can be found in Appendix C.

Data and Records

Another aspect of this ARP is data review of LFR statistical information relating to use of sick, disability and injury leave for determining a possible correlation to the current HRFP. Annual leave statistics for the three years 2002-2004 and nearly 10 months from January 1, 2005 to October 26, 2005 were used to determine a trend. This information was available through the LFR-MIS electronic achieves and was acquired on October 27, 2005.

Interviews

An interview was conducted with Fire Chief Mike Spadt on May 9, 2005 regarding the current LFR wellness-fitness program and his feelings about the WFI (M. Spadt, personal communication, May 9, 2005). His comments validated the need to replace the current program with the WFI. This meeting also clarified his philosophy of leading by example. Chief Officers

would be expected to participate. The program was to be comprehensive enough to include medical exams, rehabilitation measures, behavioral modification and fitness evaluations in a non-punitive environment.

An informal interview was conducted with IAFF Local 644 union president Mark Munger on May 16, 2005. The discussion clarified the general consensus of the firefighter's labor organization regarding the WFI and membership demographics. Also discussed was the need for a labor representative on the wellness-fitness committee charged with study of the WFI. (M. Munger, personal communications, May 16, 2005).

A telephone interview was conducted with Dr. David Durand on October 19, 2005 requesting general health and fitness opinions of LFR firefighters. Dr. Durand is the medical director for LFR and along with his staff provides annual medical examinations and return to duty physicals for all firefighters. His input provided a professional medical opinion on the general wellness-fitness of LFR firefighters (D. Durand, personal communication, October 19, 2005). Specific questions of the interview are found in Appendix D.

A telephone interview was conducted with Dr. Ed Mlinek on October 10, 2005 requesting general health and fitness opinions of LFR firefighters. Dr. Mlinek is the medical director for USAR, NETF-1 and works with medical records for many team members who are also LFR firefighters. His input provided a professional medical opinion on the general wellness-fitness of LFR firefighters that he has contact with through the USAR program (E. Mlinek, personal communication, October 10, 2005). Specific questions of the interview are also found in Appendix D.

Assumptions and limitations

It is assumed that research information for this ARP is factual or represents a professional opinion. Survey results are considered to be opinions from individuals and are thought to represent general consensus of their fire department organizations. Data from LFR department records are considered to be factual as they are compiled from daily leave entries. Interviews are considered to be professional opinions based on an expertise that represent professional experience, education and training.

Definitions and Terms

CPAT. Candidate Physical Ability Test

HRFP. Health Related Fitness Program

IAFC. International Association of Fire Chiefs

IAFF. International Association of Firefighters

LFR-MIS. Lincoln Fire & Rescue-Management Information System, an electronic record keeping system for the department.

PFT. Peer Fitness Trainer. A firefighter designated as department leader and certified with the American Council on Exercise and to assist with WFI implementation and CPAT coordinator.

WFI. An abbreviation for this ARP also known as, IAFF/IAFC Fire Service Joint Labor Management Wellness-Fitness Initiative

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Results

This ARP is the result of a need for LFR firefighters to actively participate in a comprehensive wellness and fitness program that met their individual needs and a recognized standard. Interviews with the fire department physician indicated that test results from the medical examinations of firefighters were not improving. Department Management Policy on wellness and fitness were not current, and not being followed or enforced.

Fire department administrators observed lack of participation by department members and the statistical data suggested the current wellness-fitness program was not meeting the needs of firefighters or goals of the department. Literature review did find substantial evidence that recognized standards exist through NFPA, CFAI and specifically the WFI.

Internal Wellness Survey – Response to Research question 1

Results of the internal questionnaire were sent to all 267 LFR fire suppression employees who according to job description are responsible for firefighting activities. Respondents were from all ranks and 133, or approximately 50%, responded. The entire questionnaire and response can be found in Appendix B.

Questions one and two are primarily for demographic purposes and reflect a fair representation of department members. Question six asks the recipient for his/her opinion of the level of physical fitness standards for current firefighters. Sixty six (50%) felt they were too low, 48 (36%) thought it was about right and only one (1%) thought it was too high. Many respondents did not know what the standard was for firefighters or that the department even had a standard for physical fitness and a few expressed concern for having standards that took gender, age and job specifics into consideration.

The LFR program and most standards are intended to be mandatory with on-duty time set aside for fitness activities. When asked in question nine for their on-duty participation in daily fitness, only 38 (29%) worked out every duty shift. Another 61 (46%) participated over 75% of on-duty shifts. When combined, 75% of firefighters worked out for three-fourths of their duty shifts. Another twenty three (17%) worked out over half of their on-duty shifts and only 10 (7%) respondent's worked out less than 50% of the time on-duty. Only one (1%) did not participate in any type of workout on-duty.

Research question 2

The second question for this ARP was to determine the needs of the participants in the LFR wellness program. The internal questionnaire found through question three that 111 (84%) were either very satisfied or somewhat satisfied with their level of physical health. Only 22 (16%) were unsure or somewhat dissatisfied. When asked specifically about the satisfaction of their present level of physical fitness in question four, 110 (83%) were either very or somewhat satisfied, 22 (17%) were either unsure or somewhat dissatisfied and only one (1%) very dissatisfied.

When determining individual needs based on group dynamics, questions seven, eight, and twenty three asked for information regarding a positive, supportive workout environment that is free from harassment. Respondents to question seven showed that 58 (44%) co-workers encouraged workouts while 73 (55%) had no influence and only two (2%) were discouraging. Question eight asked about any influence a supervisor's attitude toward exercise and if the supervisor participated in workouts, 84 (63%) encouraged and participated while 12 (9%) encouraged but did not participate. A disappointing 29 (22%) do not enforce a management policy requiring on-duty fitness and two (2%) of the supervisors actually discouraged and did not

allow time in the day for participants to workout. On more of a wellness and behavioral note, question 23 asked about the influence co-workers' attitudes relating to healthy eating and 91 (68%) were in fact influenced while 42 (32%) were not influenced.

Research question 3

ARP question three seeks information from the internal employee questionnaire when asked if the WFI would be comprehensive enough to meet the needs of LFR firefighters. Questions 11 and 14 show what fitness levels are accomplished in the current program. The question design allowed firefighters to answer more than one field with cardiovascular workouts consisting of 230 responses. One hundred one participate in strength activities. Seventy two stretched. When asked the duration of daily workout time in question fourteen, 33 (25%) worked out 60 minutes or more while 69 (52%) worked out for 30-60 minutes. Workouts less than 30 minutes accounted for 31 (24%) of respondents.

When considering commitment to personal fitness-wellness, LFR firefighters were asked in question 13 what their off-duty participation was. Sixty four (48%) participated most every day and 38 (29%) did work out but less than three times a week. Twenty seven (21%) either rarely worked out off-duty or they have a physical day off job and don't feel a need for off-duty participation. Question 10 attempted to find the cause for lack of on-duty participation and found that poor equipment or facilities were the leading cause for 69 (52%) respondents. Heavy work load, lack of motivation, lack of supervisor enforcement and lack of fitness counseling all accounted for 61 (46%) respondents. Specific to the WFI, question 15 found that 112 (84%) either did not know about the program or would like to know more about it. Question 16 asked for motives for increasing fitness participation and 22 (17%) respondents wanted implementation of the WFI.

Question 19 asked for specific areas where LFR firefighters wanted personal assistance in their fitness-wellness program. Between 30% and 46% of respondents were neutral but a majority indicated they either strongly agreed or agreed to have assistance in nutrition, strength, flexibility, cardiovascular fitness, sleep deprivation, stress reduction and weight loss. Only 15 (12%) needed assistance with nicotine cessation.

A successful LFR wellness program described in question 20 should be comprised of wellness counseling, nutrition assistance, weight training, flexibility, cardiovascular training, nicotine cessation, weight control and help with sleep deprivation. An annual medical exam is currently offered and only seven (6%) disagreed or strongly disagreed with it being important for the program.

When considering program management, 81 (61%) LFR firefighters strongly agreed or agree that a wellness program should be mandatory for all suppression personnel when asked in question 21. Seventy seven (58%) also felt that if the program were mandatory, it should not be punitive. Eighty seven (66%) want an annual wellness evaluation and 110 (83%) feel rehabilitation measures should be included for firefighters needing help after long-term absence or if the firefighter fail to meet the fitness standards. This was also affirmed in question 16 with 43 (32%) respondents indicated they would be motivated if fitness trainers were provided for personnel wellness counseling. Health data monitoring, program input from employees and labor and administrative support were all felt to be extremely important for a program's success with less than five (4%) disagreeing or strongly disagreeing to these points.

When asked about understanding nutrition in question 26, LFR firefighters wanted help with basic nutrition, healthy food selections and healthy food preparation. In addition, Body Mass Index (BMI) screening was important to 58 (44%) and nutritional supplements information

was needed by 52 (39%) firefighters. Question 16 indicated a desire of 25 (19%) respondents to provide frequent information about health benefits of exercise.

Research question 4

The final applied research question asked what considerations should be made when implementing a comprehensive fitness-wellness program. Seventy six (57%) firefighters answering Zoomerang™ question five felt that emergency services personnel should meet or exceed the physical job requirements while 63 (47%) should also meet a fitness for duty test. Only 16 (12%) thought that only recruits should be required to pass a fitness for duty test. Question 16 also found 49 (37%) wanted fitness standards and assessments for firefighters

Question 12 assessed the feasibility of the current management policy allocating fitness time be only after 4:30 pm. Firefighters were asked the time of day they prefer for workouts and 82 (62%) preferred morning, noon or early afternoon while only 42 (32%) preferred late afternoon or evening and 28 (21%) said it varied. Question 16 also showed 84 (63%) wanted more flexibility in workout times.

When asked in question 18 about the current 100 Point Fitness Club as an incentive program, only 42 (32%) indicated they are participating in it and a significant number felt they did not want recognition for working out. They felt that record keeping was cumbersome, they did not like the awards and 26 (20%) wanted to see a different incentive program. Program participants report points on an honor system and additional comments indicated that a questionable few are receiving awards that may not have earned them. Several suggestions were offered including money and health club discounts instead of the current t-shirts, shorts and other inexpensive awards. Question 16 indicated 34 (26%) liked incentives such as t-shirts, shorts, water bottles, etc.

This same point was echoed in question 17 when asked what would personally motivate working out. One hundred three (78%) were unsure, disagreed or strongly disagreed that the 100 Point Club participation was a motivator. Quality of life, being healthy for retirement and wanting longevity accounted for a majority of respondent's motivation. Fifty eight (44%) were motivated by a suggestion from their physician, 121 (91%) felt it was their job and duty and 129 (97%) were motivated for their own safety and that of their crew. When asked if a mandatory fitness-wellness program or a fitness for duty standard were motivation, a neutral position was evident to both questions.

With regard to healthy eating, question 24 asked for insight to individual eating habits and 115 (86%) felt they always or sometimes strive to eat healthy. Fifty (38%) stated they eat a greater quantity at work and 28 (21%) eat less healthy at work than at home. When asked in question 25 about the factors that are important regarding fire station meals, most felt that comradery, caloric and fat content, too much food, quality of food, and time and effort in food preparation and cleanup were important. To a lesser degree were meal cost and peer pressure.

Many times, friendly competition between work shifts and stations is a motivation for program participation. Question 27 found that half (50%) were split for and against competition. Additional comments supported weight loss, weight lifting, combat challenge, bike racing and healthy cooking contests.

Finally, question 28 was an open ended question asking general comments. Thirty two respondents were either supportive or critical but several constructive ideas were offered for both fitness and wellness issues. Strong feelings to formalize a comprehensive fitness-wellness program were evident and the program should be individualized and supported by both labor and administration.

External Wellness Survey – Results Section

A Zoomerang™ questionnaire was sent to 60 fire departments from a cross section of the country. There was no specific requirement for recipients of this questionnaire since firefighter fitness and wellness issues are a significant concern of the fire service community. Twenty-eight or approximately 46% of surveyed departments responded. The entire questionnaire and response can be found in Appendix C.

Questions one and eleven were for demographic purposes or general interest and did not have a significant bearing on this ARP. Question two, asked if the department had a formal fitness or wellness program. Sixteen (57%) did have a formal program and 12 (43%) did not. Additional information for this question showed that two departments were in the process of establishing a program, one was undergoing test validation and another was not a formal program.

When attempting to answer ARP question one on available standards, Zoomerang™ question three specifically asked if the department was using the WFI. Seven departments (25%) were using the WFI and 21 (75%) were not. Of these, one department stated they used the Candidate Physical Ability Test (CPAT) only while three were considering implementing the WFI.

Program incentives are an important component for a comprehensive wellness-fitness program and determining needs of the participants asked in ARP question two. When asked if there are any motivations of incentives for participating department members in question six, 10 (36%) of respondents did have some form of incentive while 18 (64%) did not. Additional comments specified a variety of incentives that offered monetary or cost savings for personal

trainers, gifts or prizes to be used in a fitness program, paid time off, ribbons and recognition ceremonies or simply personal satisfaction for good health.

ARP question three attempted to determine if the WFI were comprehensive enough and several questions applied. When asked in question four how extensive the WFI was applied, four (14%) stated that all aspects were applied, three departments (11%) partially implemented the WFI and 11 (39%) used a different wellness program. One department was considering WFI and one was unsure of specifics of the WFI.

Most sources showed wellness-fitness standards are mandatory and should include all suppression personnel including firefighters, company officers and chief officers. Question five response indicated that three departments (11%) required only firefighters and company officers while 10 (36%) also include chief officers. Eight respondents stated their fitness –wellness program was not mandatory. Question seven asked for departments who evaluate fitness of fire suppression personnel, and 10 departments (36%) had an annual fitness evaluation while two (7%) tested every two years. Ten departments (36%) did no fitness testing. Comments clarified that two respondent departments were evaluating pre-employment personnel only, two tested hazmat personnel only, two were voluntary every two years, one tested quarterly in-house and two were just considering a fitness evaluation. When asked what the regular fitness evaluation consisted of in question eight, 11 (39%) had no evaluation, nine (32%) completed both strength and aerobic testing, one (4%) was a self-evaluation and four (14%) used a CPAT or similar timed job skills test. Additional comments on the type of testing showed a comprehensive range from flexibility, body fat, blood testing, diet review and various strength and aerobic evaluations.

ARP question four asked what specific considerations were made when implementing the WFI. Question nine found lack of funding to be the overriding issue for nine departments (36%) coupled with poor facilities indicated by eight (29%) of respondents. Lack of administrative support from three (11%) and resistance from firefighters/union accounted for five (18%) of the departments. Motivation, unspecific personnel issues and the non-mandatory nature of the wellness-fitness program were also noted.

In an effort to capture insight to significant benefits relative to the WFI, question 10 respondents stated a positive change in fire department culture, better overall fitness and weight loss, a motivation to stay healthy and relieve stress. Other comments indicated improved overall workplace health, medical exams and uncovering potential personal medical issues. One department claimed quicker injury rehabilitation and another felt firefighters were better able to do their jobs.

Question 12 allowed for general response relative to the WFI. Validation of the program and education was thought to be important. Using a liaison such as a fire department physician or fitness trainer removed department members from private personnel information or actions. Two respondents stated that the labor-management program design and support helped in the success of organizational implementation. Others thought the program was very comprehensive.

Discussion

The first question of this ARP asks what standards are available for a comprehensive firefighter wellness program and it is evident that professional consensus standards exist through NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, (NFPA, 2002), NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments (NFPA, 2003) and NFPA 1583, Standard on Health-Related Fitness Programs for

Firefighters (NFPA, 2000), which promotes the WFI as a tool to use in conjunction with the NFPA standards.

The LFR accreditation documents through CFAI are general in nature and require a health/physical fitness program with provisions for non-compliant members (CFAI, 1997-2000). LFR policies are in place that supports such a program, but many of the policies are not current or lack compliance. Through literature review it was found that of the sixteen policies related to the HRFP, three are recently revised or in revision, three are current and the other ten are out of date, obsolete, not being followed or enforced.

LFR has supported a HRFP by department policy for many years, but research through literature review indicated a HRFP is well intended but is not meeting the needs of a comprehensive program as indicated by current standard. For example, MP 310.01 on Physical Fitness states all department members shall participate in either the structured Physical Fitness Program of the Wellness Program administered by wellness counselors (LFR, 1999). This program is not fully adhered to by all department members from all ranks and there currently are no wellness counselors. Internal question nine showed only 29% worked out daily even though one and one-half hours is set aside daily for fitness. Company officers are to keep appropriate records of fitness and wellness activities yet records are incomplete or not available through the LFR-MIS. Again the survey found in question eight that 22% of company officers are not enforcing fitness and only 119 (45%) are recording participation in the 100 Point club database.

MP 310.09 details the Wellness Program for LFR and it was last revised in 1993. The policy states that fitness counselors are trained in the areas of medical screening, nutrition education, flexibility, body composition, cardiovascular concerns and strength (LFR, 1993). Assessments for muscular flexibility, body compositions, Cardio-respiratory, muscular strength

(absolute), dynamic strength (muscular endurance) and nutritional education are not being done and no one is currently trained to provide assessments. Most of the difficulty with the current wellness program and particularly with the use of department members as wellness counselors is the logistical difficulty in scheduling and effectively counseling and conducting assessments. LFR has 14 fire station locations with three different duty shifts for a total of at least 42 contact requirements. Other concerns specific to the use of peer counselors is with continuing education, recruitment of counselors, privacy concerns and funding (LFR, 1993a) The IAFF recommends the use of PFT however internal question 22 showed that 68 (58%) respondents prefer that evaluations be done by a third party familiar with firefighter job requirements. (IAFF, 2005)

The policy MP 306.03, Fitness for Duty was revised in May 2005 to determine that all fire suppression members, regardless of rank, are physically capable of meeting the minimum qualifications and expectations of their job classification. It addresses specific circumstances of return from serious injury or illness when absent for 30 days or more. (LFR, 2005a). The WFI states when extended leave for firefighters exceeds six continuous months, a medical and fitness evaluation must be conducted before release to duty (IAFF/IAFC, 1999-2000, p. 67). This shows a conflict between the WFI and department policy and consensus will need to be reached for successful implementation.

MP 310.10, The 100 point fitness club policy was designed as an incentive for both on and off duty fitness and wellness participation. The program has been moderately successful with several employees participating who may not otherwise be involved, particularly in off duty participation. Comments from the LFR internal questionnaire indicated the program needs revision. The honor system is used by participants for reporting daily qualifying activities but critics of the program claim many participants are not truthful. The current program is two years

long and the awards are of poor quality offering minimal value or incentive to members. Greater participation may occur if rewards are more frequent, meaningful and higher quality (LFR, 1993b).

The current LFR Smoking Policy MP 306.10 was revised in 2001 and only restricts smoking to appropriated times and locations so as not to affect non-smokers. Assistance is offered for employees wishing to attend smoking cessation clinics or classes. This policy should be revised to include all forms of tobacco use, an education component and other elements of the WFI (LFR, 2001).

When considering ARP question one, valuable information was also acquired through the internal LFR questionnaire. With only 50% participating of 267 polled, it is thought that most respondents had strong feelings regarding the HRFP. Even though technical problems existed in administration of this questionnaire, the lack of response from 50% of LFR firefighters was disappointing. Based on comments in the questionnaires, it is possible that those who responded either had very strong feelings for or against a HRFP or are current participants and want a formal program requiring others to meet a certain standard of physical fitness. Those with strong feelings against an HRFP are most likely concerned over fitness evaluations, the mandatory nature or not being able to meet the standard.

When responding to question eight, which asked for response on the mandatory nature of the fitness policy, it was found that 25% of firefighters participated less than half of the days they were on-duty or not at all. Question seven also affirmed that 22% felt the fitness policies are not being enforced and another 2% found workouts actually discouraged by officers. This confirmed that the LFR policies are not being followed regarding the current HRFP.

External question two and three found that 57% of the respondents did have a formal HRFP and 25% of those were the WFI. This shows recognition of a national standard and specifically the WFI. Several individual comments from both internal and external questionnaires showed a high interest in using a national standard when designing and implementing a HRFP.

ARP question two asks what the needs were of participants in the LFR wellness program. LFR participants responded in question 19 wanting formal cardio, flexibility nutrition and tobacco cessation programs, all of which are components of the WFI. Annual fitness evaluations for LFR firefighters were also important to 66% in question 17 and 61% either strongly agreed or agreed in question 21 that the program should not be punitive. These feelings confirm statements from WFI (IAFF, 1997-2000) and NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, (NFPA, 2002) and NFPA 1583, Standard on Health-Related Fitness Programs for Firefighters (NFPA, 2000).

Some respondents to the external questionnaire felt an incentive component would improve participation in physical fitness programs with 36% answering question six. While some felt incentives motivated, others consider fitness to be part of doing the job and incentives are detrimental to the program.

ARP question three asked if the WFI is comprehensive enough to meet the needs of LFR firefighters and question four asked for implementation considerations. In order to access the response to these questions, an extensive review was necessary to compare the WFI with recognized standards and analyze both the internal and external questionnaires.

The WFI clearly meets standards and each chapter shows the comprehensive nature of the program. Since it was developed as a joint IAFF/IAFC initiative, tensions are eased among

local jurisdictions with political stress between labor and management. This is confirmed by one respondent to the external survey question 12 who maintained implementation was easier, however another claimed a five year negotiation process ensued after implementation that diminished program content. Conversations with LFR fire chief and union officials seem to support a smooth implementation process for LFR.

Issues in chapter one of the WFI causing most individuals concern is the mandatory and non-punitive intent of the program. The program does offer a rehabilitation process and an educational component that supports those who have additional needs. Some burden rests with firefighters who are unmotivated since they will be required to participate. The internal questionnaire indicates in questions five, seventeen and twenty-one all show support for a mandatory, non-punitive program. This is also reflected in external questions five and seven.

Chapter two of the WFI discusses the medical examination component which LFR has been participating in for many years. The medical exam process is very detailed and will need the LFR department physician to conduct a comparative analysis with the process in NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments. Budget and financial concerns associated with additional medical tests will be a challenge, but still does not compare to the costs of heart attack or rehabilitation of unnecessary injuries. With medical costs ever increasing, it will be essential that careful planning and promotion be considered.

The WFI allows for firefighters to have a medical exam completed by their personal physician (WFI, 1997-2000, p. 11). LFR administration recently revised MP 306.03, Fitness for Duty to require all medical exams be completed by the fire department physician who is board certified in occupational medicine and conducts medical exams according to NFPA 1582,

Standard on Comprehensive Occupational Medical Program for Fire Departments (LFR, 2005a). This should meet and possibly exceed the minimum requirements of both NFPA 1582 and WFI.

Chapter three of the WFI discusses equipment and facilities needed for a successful fitness-wellness program. LFR and other departments realize quickly that fitness equipment is costly especially when attempting to outfit each fire station. Many options can be considered with joint facilities or fire companies using local schools and gyms. It is also apparent that fire stations built over 20 years ago simply did not allow space for workout facilities. It is the goal of LFR to include workout space in new or remodel fire station projects. Due to air quality issues, the workout area will not be located in the apparatus bay. Many departments responding to the external questionnaire also indicated a challenge with appropriate equipment and facilities to meet the WFI.

Chapter four of the WFI outlines the rehabilitation process. The internal questionnaire respondents indicated that rehabilitation is a very important component of a successful program on their response to question 21. LFR has already implemented many of the rehabilitation measures however the WFI states that a medical and fitness evaluation must be completed after six months extended leave (IAFF/IAFC, 1997-2000, p. 67). LFR takes a more conservative approach by requiring a fitness for duty medical and physical evaluation completed after only 30 days extended leave (LFR, 2005a). Since NFPA and WFI are considered minimum standards and this requirement is more stringent, it is not likely that this policy will change.

Many of the behavioral health issues outlined in chapter six of the WFI are in department policy and offered through a contract agency. Critical Incident Stress Management (CISM), Employee Assistance Program (EAP) services and tobacco cessation assistance are examples. It is evident that many LFR department policies need revision in areas of nutrition, weight loss, and

stress reduction. The WFI will offer structure to this process. Internal questions 19, 20, 21, 24, 25, and 26 indicate LFR respondents also are interested in a more comprehensive program to address behavioral health and wellness issues.

Chapter six of the WFI outlines the personal data collection component with emphasis on a confidential database. LFR database currently is limited to the 100 Point Fitness Club reporting and tracking injuries, leave or other personnel documentation through LFR-MIS. There is no question that information is a valuable tool for individual improvement, and confidential comparative data needed for program management and documentation. More information is needed from the International Wellness-Fitness Database before implementation. LFR will need to research areas for the purpose of data collection, confidentiality, technical aspect and operability with the LFR-MIS database.

LFR Internal survey question 15 found 84% were not aware of the WFI or fitness standards but when asked about separate components found in the WFI, they favored those same components when answering questions 19 and 20. When answering question 21, 61% of firefighters felt the program should be mandatory and 58% want a non-punitive program. An annual wellness evaluation was important to 66% and most also wanted nutritional information and help with behavioral issues when responding to questions 16 and 26. Respondents felt Health data monitoring is important and will be further researched.

The WFI was fully implemented in 14% of respondent organizations, partially implemented in 11% and 39% used a different program other than the WFI. Question five asked for implementation details varied with only 36% of the fire departments requiring all firefighters, including chief officers, to participate. Formal fitness evaluations were only completed in 43% of the departments answering question seven while others did conduct informal evaluations.

NFPA 1583 Standard on Health-Related Fitness Programs for Firefighters is clear that all members of the department shall participate in the HRFP (NFPA, 2000).

Question four of the ARP asked what considerations should be made when implementing a comprehensive wellness program. Internal questionnaire response to question 16 from LFR firefighters indicated that a change in the current program is wanted. Many of these changes will be considered during program implementation, and some through policy and establishing standards. For example, minor program changes such as time of day for workouts asked in questions 12 and 16 are easily addressed through policy changes while upgrades to facilities and equipment require time, planning and funding support.

It is clear from question 17 with 78% response, that the 100 Point incentive program has questionable motivational value. Awards are poor quality and unsatisfactory to the point of being a deterrent. A change in the incentive program will be needed to achieve success. Suggestions from question 27 showed 50% of respondents thought a variety of competitive events would stimulate participation.

Currently, LFR firefighter candidates are medically screened but no policy, procedure or program is defined for a fitness evaluation other than the pre-employment physical ability test. Several respondents to both the internal and external questionnaire indicated that a formalized fitness evaluation such as CPAT be considered.

From the external questionnaire results, lack of funding and poor facilities accounted for 65% of program deficiencies. Question 10 respondents offered insight that fitness and wellness programs are a cultural change that does not occur easily. Others give hope that many positive aspects had been evident through reduction of injuries and rehabilitation times, successful medical screenings, and improved firefighter health and job performance.

Recommendations

Research in this ARP has found sufficient information to determine that the WFI is based on recognized and credible standards and those standards are comprehensive enough to meet the needs of LFR firefighters. Several considerations were also found and can be addressed during the implementation process.

It is recommended that LFR implement The Fire Service IAFF/IAFC Joint Labor Management Wellness-Fitness Initiative (WFI) Second Edition. After extensive research, interviews and internal firefighter and external fire department questionnaires, there is logical support for and answers to research questions of this ARP. Full implementation of the WFI may require time because of costs associated with the equipment and medical components however the implementation can be phased in over a reasonable amount of time.

The second recommendation is that all wellness-fitness related LFR Management Policies be revised to incorporate the complete implementation of the WFI. The HRRP committee will plan, coordinate and follow the recommended guidelines for implementation of the WFI. Program evaluation will be a regular process. The implementation plan will especially be concerned that the mandatory participation, rehabilitation process and non-punitive issues be clear to all firefighters. Participation will include all members from all ranks, firefighters to chief officers.

The third recommendation is for the use of certified Peer Fitness Trainers (PFT) or an equally qualified third party familiar with firefighter job requirements. The PFT will administer all fitness evaluations, work with rehabilitation issues, provide support and guidance in both fitness and wellness aspects of the WFI and maintain confidentiality.

The fourth recommendation is to continue to maintain and improve fitness equipment and facilities to accommodate workouts. Proper planning, budget allocations, and capital improvements will be necessary to reach program goals.

The fifth recommendation is to research the International Wellness-Fitness Database for entry and maintenance of individual records. Health data monitoring is important, but little was found on specific details of the process including operability with the current LFR-MIS. Information of participants in the database will also remain confidential.

The sixth recommendation is to change and improve the 100 Point Fitness incentive program. The concept is sound, however the quality and significance of awards needs improvement. Frequency of the recognition and a friendly competition will help improve morale and encourage participation.

The seventh recommendation is for implementing a fitness evaluation or screening method for firefighter candidates. Currently, LFR firefighter candidates are medically screened but no formal policy, procedure or program is defined for pre-employment fitness evaluation. CPAT and other certified programs meeting recognized standards are currently used in the fire service and should be considered.

It is important to realize that a cultural change is taking place which can be a slow process. Most can agree that a comprehensive fitness and wellness program should be considered an investment in the health and welfare of the department's greatest asset; it's personnel. Many firefighters who answered the questionnaire responded that they wanted to leave this career and enjoy a healthy retirement and we can help them reach that personal goal. Firefighter health and safety are critical issues and we, as fire service leaders, have an obligation to provide all we can to make sure everyone goes home at the end of their duty shift.

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